

ED 021 396

EF 000 926

PHYSICAL EDUCATION, ELEMENTARY SCHOOLS FACILITIES AND BASIC EQUIPMENT 1965.

Massachusetts School Building Assistance Commission, Boston.

Spons Agency- Massachusetts Association for Health, Physical Education and Recreation.

Pub Date 65.

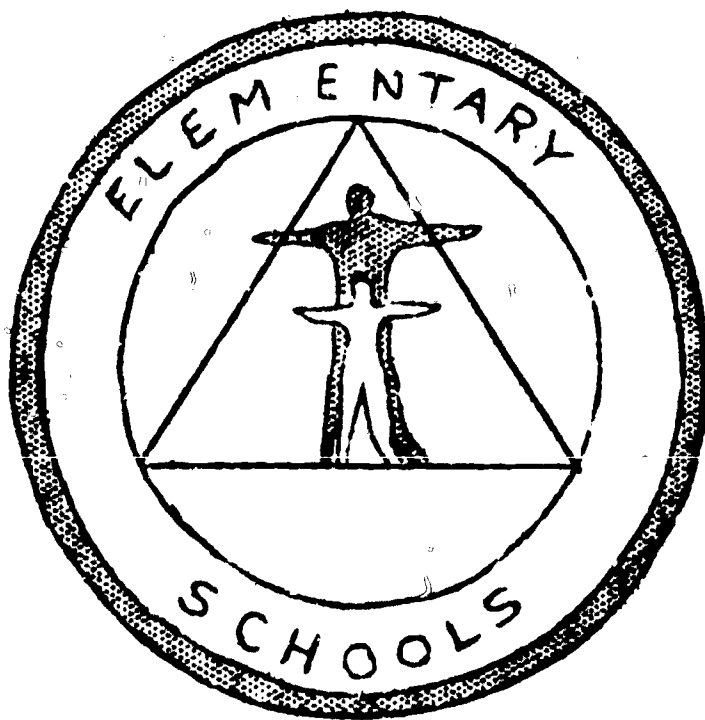
Note- 12p.

EDRS Price MF-\$0.25 HC-\$0.56

Descriptors- \*ELEMENTARY SCHOOLS, \*EQUIPMENT, \*GYMNASIUMS, PHYSICAL EDUCATION, PHYSICAL EDUCATION FACILITIES, PLAYGROUNDS

This report is an outline of recommended specifications for the elementary school physical education program. The indoor physical education facility (gymnasium) should be located away from the classroom area and readily accessible to outside play areas. The size of the gymnasium should be determined by the number and size of the classes that use it. The floor, walls and ceiling should be constructed of durable materials. Movable partitions may be desirable for multiple class use of the gymnasium. Non-glare, shadow-free lighting should be provided. The locker room is to be equipped with adequate drainage and ventilation, full length lockers on outside walls, covered radiators and pipes, and benches which are fixed to the floor. The shower room should be adjacent to the locker room. The outdoor play areas should be proportionate to school enrollment. The report recommends ample space be provided for game areas. Indoor and outdoor lists of equipment are included as well as a selected bibliography. (GM)

# PHYSICAL EDUCATION



## FACILITIES & BASIC EQUIPMENT 1965

DEVELOPED JOINTLY BY PHYSICAL EDUCATION ADMINISTRATORS AND REPRESENTATIVES OF THE MASSACHUSETTS SCHOOL BUILDINGS ASSISTANCE COMMISSION. FINANCED BY THE MASSACHUSETTS ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION AND RECREATION.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED021396  
EF000926

## INTRODUCTION

MODERN SOCIETY EXERTS LITTLE OR NO CHALLENGE TO MAN'S PHYSICAL BEING. YET, THE BASIS FOR MAN'S SELF-REALIZATION AND HIS CONTRIBUTION TO SOCIETY REMAINS A SOUND MIND IN A SOUND BODY. PHYSICAL EDUCATION IS THE ONE SUBJECT AREA IN THE TOTAL EDUCATIONAL PROGRAM OF OUR SCHOOLS THAT CONCERNS ITSELF WITH THE PHYSICAL GROWTH AND DEVELOPMENT OF INDIVIDUAL STUDENTS. THEREFORE, LET NO EFFORT BE SPARED IN OUR DAY TO PROVIDE PROPER AND SUFFICIENT FACILITIES IN OUR SCHOOLS FOR THE ESTABLISHMENT AND MAINTENANCE OF GOOD PROGRAMS OF PHYSICAL EDUCATION.

THIS BROCHURE IS INTENDED TO PROVIDE SUGGESTIONS FOR THOSE WHO ARE INTERESTED AND HAVE RESPONSIBILITY FOR PLANNING THE FACILITIES FOR INSTRUCTIONAL PHYSICAL EDUCATION, AFTER SCHOOL ACTIVITIES, AND COMMUNITY USE.

THE PHYSICAL EDUCATION DIRECTOR AND STAFF, ALONG WITH THE ADMINISTRATORS, MUST PLAN THE FACILITY BEFORE THE ARCHITECT HAS DRAWN UP PRELIMINARY PLANS. AFTER THESE PLANS HAVE BEEN PRESENTED, CONSULTATIONS SHOULD BE ARRANGED WITH THE ARCHITECT BEFORE FINAL PLANS HAVE BEEN ACCEPTED AND THE CONTRACT LET.

\*\*\*\*\*

## **T A B L E   O F   C O N T E N T S**

### **I    INDOOR FACILITIES**

### **II   OUTDOOR FACILITIES**

### **III   BASIC EQUIPMENT**

### **IV   SELECTED BIBLIOGRAPHY**

**List of Steering Committee**

**\*\*\*\*\***

## I - INDOOR FACILITIES

### Gymnasium

#### Location

- A wing located away from classrooms
- Separate gymnasium from classrooms with a corridor
- Readily accessible to outdoor play areas that are adjacent to the school and closed off from the building when school is not in session and used by outside groups
- Locate doors to provide access from corridors
- Provide exits directly from gymnasium to street or parking area

#### Size

The size of the gymnasium is determined by:

- Number of classes to be scheduled
- Size of each class (recommended size not to exceed 30)
- Time allotment for physical education classes each week
- Activities to be included in the physical education program and proposed community needs

Recommended size for minimum standard is shown below:

Number of classrooms (not including kindergarten or special classes)

6...40'x60'x18'....1 Teaching Station

7-12...52'x72'x18'....2 Teaching Stations with dividing doors

12 or over...52'x72'x18'....3 Teaching Stations with dividing doors,  
including Remedial or Activity Room-30'x40'x12'

#### Floor

- Above the ground level to insure dryness and preservation of wood
- Sub-floor well ventilated and pressure treated
- Hardwood, preferably maple, laid parallel to the long dimensions of the gym (other types of surface create problems of safety and maintenance)

- Sanded to a smooth surface and sealed with non-slip material
- Markings applied after first or second sealer coat (plastic or synthetic tapes may be used)
- Plates for volleyball, etc. installed before the first sealer coat
- Base cement floor of gymnasium waterproofed (prevents sub-floor and finished floor from deterioration)

### Walls and Ceiling

- Walls constructed of durable materials with smooth surface to a minimum height of ten feet (this will help to prevent injuries)
- Ample clear wall space which can be used for practicing ball skills
- Open ceiling for easy installation of suspended apparatus, basketball backboards, etc.
- Non-glare type of lighting to eliminate shadows
- Flush-mounted light fixtures which can be serviced from the floor
- Switch box in instructor's office
- Electrical outlets on all four walls for record player, projectors, special lighting, microphones, etc.
- Special attention to the proper acoustical treatment
- Eliminate all hazardous wall projections

### Movable Partitions

- Motor-driven, sound-proofed partitions constructed of a smooth, durable material
- Retract into wall when closed
- Switch at a safe distance from the partition to avoid possible injury to the operator (key-switches are recommended)
- Access to each section of gymnasium by a door in the partition near the walls and out of the area where activity may be taking place. Door should have a recessed locking device with key. This is a vital safety precaution.

### Natural Light

- Windows high off floor to prevent glare
- Windows together, if possible, on long sides of gymnasium

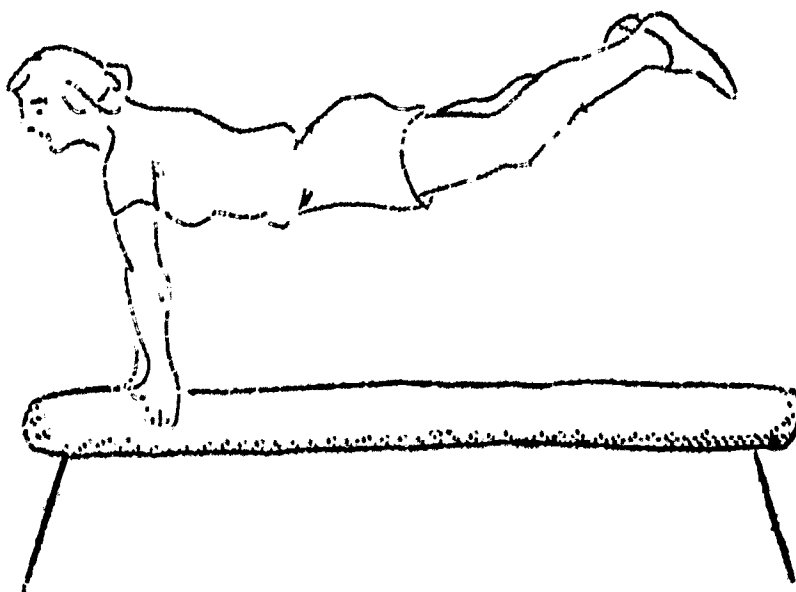
- Window glass that will provide for safety, elimination of sunlight glare, and prevention of excessive heat

#### Drinking Fountains and Cuspidors

- Drinking fountains and cuspidors of the recessed type in a safe location in the gymnasium (away from fixed equipment such as ladders, basketball backboards, etc.)

#### Apparatus and Equipment Storage Room

- Storage room for each gymnasium teaching station
- Minimum size: 20'x20'x10', placed so that it will be accessible to both portions of a divided gymnasium
- Overhead type doors with a minimum width of 8' and eliminate thresholds





### Locker Room Provisions

- Dressing-locker rooms primarily for physical education with after school activities and community use considered in an overall plan
- Locate the dressing-locker rooms on the gymnasium floor level and connect to the gymnasium
- Full length lockers on the outside walls, with space in the center of the room for small storage lockers if the program requires a change in physical education uniforms.
- Size of dressing-locker room determined by the maximum class size, community needs, after school activities by young people.
- Dressing-locker rooms to have mirrors located away from laboratories and sinks
- Radiators and pipes covered
- Drains with ample pitch for hosing down
- Benches secure to floor
- A manually-operated switch for airing locker room, especially if showers have been installed

### Shower Room Provisions

Since dressing and showering are recognized as being integral parts of the health and physical education programs, it is recommended that pupils in the elementary schools have an opportunity to shower and dress after activities.

- The size of the shower room and adjoining locker room determined by the enrollment of the school and by its overall use (after school sports and community recreation also need this facility)
- Locate adjacent to locker rooms to provide easy access from the gymnasium
- Non-slip floors and walls tiled to at least six-foot height
- Proper drainage in shower and locker room floor is very important. Pitch floor to drain
- Permanent shower heads fastened to wall in fixed position

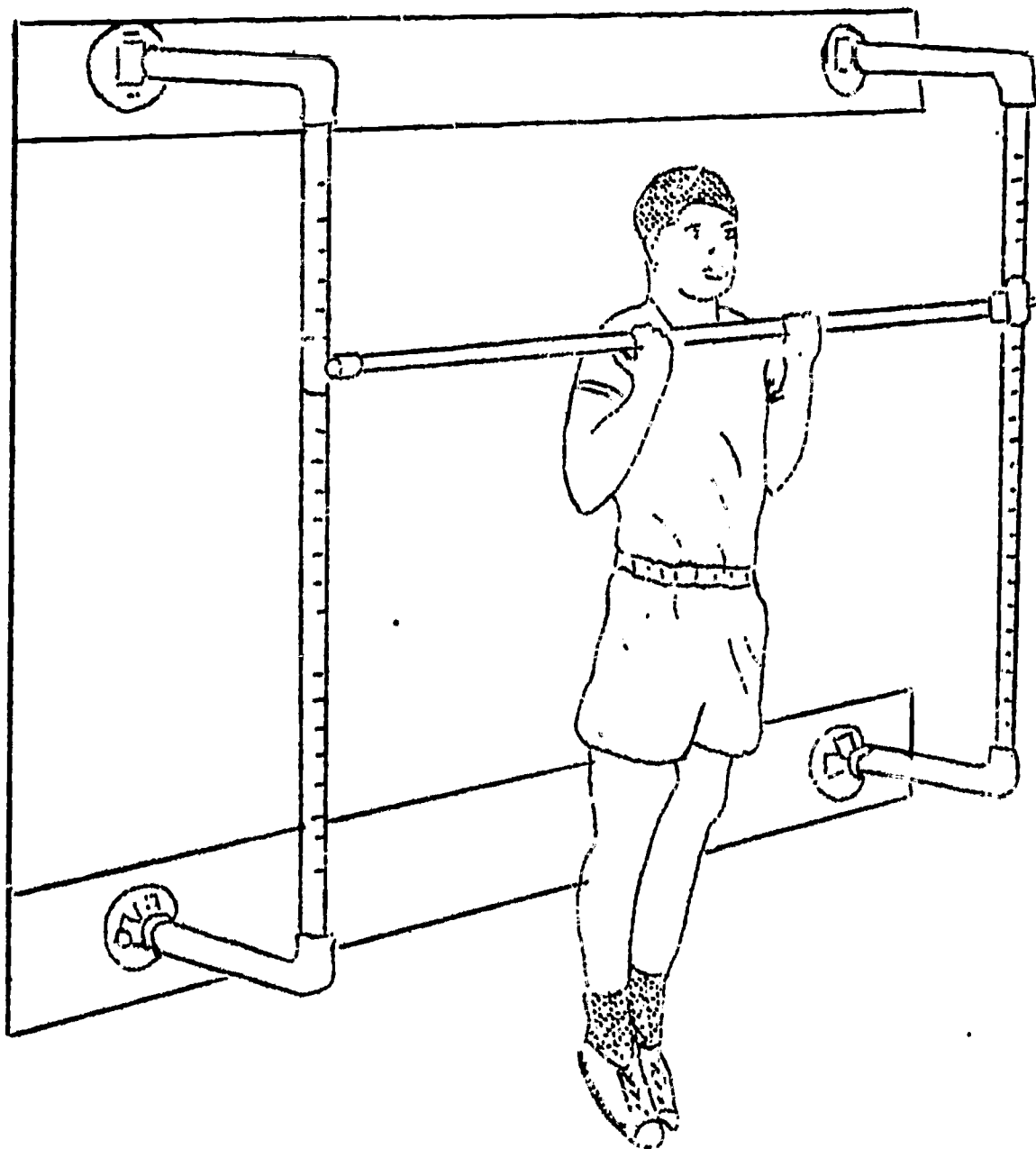


### Toilet Room

- Entrance to toilet area from dressing-locker rooms
- Enclose toilet units separate from dressing-locker room and accessible to outside groups without using locker room or gymnasium
- Provide for good ventilation

### Instructor's Office

- Locate for proper supervision and accessibility to the gymnasium, dressing-locker room and outside play areas



## II - OUTDOOR FACILITIES

### Size of Space Needed

For elementary schools it is suggested that there be provided a minimum site of 10 acres plus an additional acre for each 100 pupils of projected ultimate maximum enrollment. Thus the site of minimum size for an elementary school of 200 pupils would be 12 acres.

### Location of Play Areas

- Easy access to school via walks
- Safe area away from streets, parking lots, loading areas, etc.
- Land with good drainage
- Removed from classroom instruction areas

### Use of Space (Function)

For primary grades, K-1-2-3, there should be a protected area about 10,000 square feet.

- Permanent playground apparatus here
- An open space for primary grades to play circle games and running games

For grades 4-5-6 there should be space for:

- Basketball and volleyball..... hard top, 40'x60'
- 2 soccer and football fields..... 120'x150' each
- Track and field..... 100 yard straightaway
- 2 softball fields..... 150'x150' each
- Space for games of low organization during physical education classes

### Type of Surface for Different Areas

- Sand or sawdust under apparatus
- Grass in the rest of the primary area
- Hardtop area for basketball and volleyball, and for early spring and fall use while grass area is damp

### III - BASIC EQUIPMENT

#### Indoor Equipment

1. Climbing ropes (6 to 8) hung so they may be used for climbing, swinging, and various stunts.
2. Basketball backboards - preferably those which may be raised or lowered from a height of eight feet to regulation height of ten feet.
3. Mats - light plastic mats available in different colors. Would suggest minimum of eight - 4'x6'.
4. Standards - for use in volleyball, tennis, badminton, and other net games. Should be type that can be secured to floor. Insert plates in floor.
5. Vaulting Box or Swedish Box - a practical piece of equipment for elementary school children.
6. Balance Beams
7. Bleachers - unnecessary for elementary school gymnasiums.

#### Outdoor Equipment

1. Basketball backboards - placed in a line along the side of a hardtop area opposite each other so there is a greater use by more children. Some of the backboards should be lowered a foot or two so that children may be more successful in their attempts to shoot baskets.
2. Backstop - for baseball at the corner of a field. Consideration should be given to boarding the backsides for the possible use of handball or wall tennis.
3. Sandboxes - located in the shade.
4. Climbing bars (jungle gym or horizontal ladder) - set in cement and located in the restricted area away from the ball field.
5. Standards - for volleyball, tennis badminton. Constructed of pipes 2" in diameter. The 2" upright pipes to be inserted in a 2½" sleeve which will be placed in cement in the ground. The sleeves should be threaded so they can be capped when not in use.

#### IV - SELECTED BIBLIOGRAPHY

1. Athletic Institute, Chicago, Illinois, 1960  
Equipment and Supplies for Athletics, Physical Education and Recreation
2. Gabrielson and Miles, Prentice Hall, 1958, Englewood Cliffs, New Jersey  
Sports and Recreation Facilities for School and Community
3. Miller and Whitcomb, Prentice Hall, Englewood Cliffs, New Jersey, 2nd Edition, 1963  
Physical Education in the Elementary School Curriculum
4. National Council on Schoolhouse Construction  
Guide for Planning School Plants
5. Scott and Westkaemper  
From Program to Facilities in Physical Education
6. State of New Jersey, Department of Education - Trenton  
A Guide for Planning Physical Education and Athletic Facilities
7. United States Department of Health and Welfare, Office of Education, Washington, D. C. 1961
8. Williams & Brownell, Saunders Co., Philadelphia, Pennsylvania  
The Administration of Health Education and Physical Education

PHYSICAL EDUCATION  
FACILITIES AND BASIC EQUIPMENT  
ELEMENTARY SCHOOL  
1965

Developed by Physical Education Administrators from the following schools:

Chairman: J. Robert Eddy	...	Brookline Public Schools
Edward E. Abell	-	Lexington Public Schools
Ralph E. Bevins	-	Arlington Public Schools
Philip H. Claxton	-	Needham Public Schools
Earle W. Crompton	-	Wakefield Public Schools
Donald D. Dunn	-	Andover Public Schools
Warren L. Huston	-	Newton Public Schools
Frederick A. Janes	-	Framingham Public Schools
Henry T. Knowlton	-	Winchester Public Schools
Munroe D. MacLean	-	Quincy Public Schools
Joseph McKenney	-	Boston Public Schools
Elmer E. Raymond Jr.	-	Braintree Public Schools
Robert E. Raymond	-	Milton Public Schools
Howard T. Sandrock	-	Brockton Public Schools
Frank M. Simmons	-	Newton Public Schools
Frederick E. Steeves	-	Wellesley Public Schools
Meldon T. Wenner	-	Belmont Public Schools

Consultants:

William B. Black	-	Mass. School Building Assistance Commission
Arthur G. Miller	-	Boston University
Dorothy V. Briant	-	B. U. Sargent College
Helene D. Breivogel	-	Newton Public Schools